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09/855,199	05/14/2001	Vijaya Raghavan	04899-044001	8175

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EXAMINER
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ALHIJA, SAIF A

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/855,199

**Applicant(s)**

RAGHAVAN ET AL.

**Examiner**

Saif A. Alhija

**Art Unit**

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

Art Unit: 2128

**DETAILED ACTION**

1. Claims 1-60 have been presented for examination based on the application filed on 14 May 2001.

**Title**

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

**Oath/Declaration**

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The oath or declaration has not been included in the application.

**Specification**

The incorporation by reference of the Appendix in the specification is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted

Art Unit: 2128

is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

**Drawings**

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

A) Description of Figure 2 contains the reference sign 34, which is not in the corresponding Figure. It appears that the reference number 30 on the right hand side should correspond to reference number 34.

B) Figure 4 contains the reference sign 69, which is not mentioned in the description of figures.

C) Figure 7 contains the reference sign 40, which does not appear to be in a valid location.

D) Figure 9 contains reference signs 128, 138, 140, and 144, which are not mentioned in the description of figures.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an

Art Unit: 2128

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**5. Claim(s) 1-60 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Kodosky et al. "System and Method for Programmatically Generating a Graphical Program in Response to a State Diagram" U.S. Patent Application Publication # 2002/0083413 A1.**

**Regarding Claim 1:**

**Kodosky et al. discloses a method comprising:**

using a computer having a graphical user interface; (Page 11, Paragraph 116, Lines 7-10)

Art Unit: 2128

defining at least one function within a graphical representation of a finite state machine (Page 14, Paragraph 165, Lines 1-5. Figure 19)

representing the at least one function graphically; (Page 14, Paragraph 165, Lines 1-5. Figure 19)

calling the graphical function in a modeling system. (Page 15, Paragraph 166, Lines 11-15)

**Regarding Claim 2:**

**Kodosky et al. discloses** the method of claim 1 wherein the defining step comprises using a function block. (Page 14, Paragraph 165, Lines 7-9. Figure 19)

**Regarding Claim 3:**

**Kodosky et al. discloses** the method of claim 2 wherein the defining step further comprises using a function prototype. (Page 2, Paragraph 11, Lines 1-6)

**Regarding Claim 4:**

**Kodosky et al. discloses** the method of claim 1 wherein the defining step further comprises using a function flow diagram. (Page 1, Paragraph 9, Lines 7-9)

**Regarding Claim 5:**

Art Unit: 2128

**Kodosky et al. discloses** the method of claim 4 wherein the representation of the function comprises a diagram comprising graphical elements. (Figure 8)

**Regarding Claim 6:**

**Kodosky et al. discloses** the method of claim 1 wherein the simulation system comprises means for graphical diagramming. (Figure 8)

**Regarding Claim 7:**

**Kodosky et al. discloses** a system comprising:

a computer comprising a graphical user interface, memory, storage, and at least one input device; (Page 6, Paragraph 63, Lines 1-4)

a computer program residing on computer readable media having instructions to cause the computer to: receive user input defining at least one graphical function; (Page 6, Paragraph 63, Lines 1-8)

receive user input to use the at least one graphical function in a simulation. (Page 1, Paragraph 9, Lines 1-2)

**Regarding Claim 8:**

**Kodosky et al. discloses** the system of claim 7 wherein the user input defining the at least one graphical function is entered into a function block. (Page 1, Paragraph 9, Lines 1-2)

**Regarding Claim 9:**

Art Unit: 2128

**Kodosky et al. discloses** the system of claim 8 wherein the user input defining the at least one graphical function includes a function prototype. (Page 2, Paragraph 11, Lines 1-6)

**Regarding Claim 10:**

**Kodosky et al. discloses** the system of claim 7 wherein the user input comprises a function flow diagram. (Page 1, Paragraph 9, Lines 7-9)

**Regarding Claim 11:**

**Kodosky et al. discloses** the system of claim 10 wherein the flow diagram is comprised of graphical elements. (Figure 8)

**Regarding Claim 12:**

**Kodosky et al. discloses** a computer program product, stored in a computer readable medium, comprising instructions to cause a computer to:

receive user input defining at least one graphical function; (Page 6, Paragraph 63, Lines 1-8)

receive user input to use the at least one graphical function in a simulation. (Page 1, Paragraph 9, Lines 1-2)

**Regarding Claim 13:**

**Kodosky et al. discloses** the computer program product of claim 12 wherein the user input defining the at least one graphical function is entered into a function



Art Unit: 2128

block. (Page 1, Paragraph 9, Lines 1-2)

**Regarding Claim 14:**

**Kodosky et al. discloses** the computer program product of claim 12 wherein the user input defining the at least one graphical function includes a function prototype. (Page 2, Paragraph 11, Lines 1-6)

**Regarding Claim 15:**

**Kodosky et al. discloses** the computer program product of claim 12 wherein the user input comprises a function flow diagram. (Page 1, Paragraph 9, Lines 7-9)

**Regarding Claim 16:**

**Kodosky et al. discloses** the computer program product of claim 12 wherein the function flow diagram is a comprised of graphical elements. (Figure 8)

**Regarding Claim 17:**

**Kodosky et al. discloses** a system for modeling finite state machines comprising:

a computer comprising a graphical user interface, memory, storage, and at least one input device; (Page 6, Paragraph 63, Lines 1-4)

means to receive user input to define at least one graphical function;  
(Page 6, Paragraph 63, Lines 1-8)

Art Unit: 2128

means to represent the function in a state flow diagram; (Page 2, Paragraph 16, Lines 4-9)

means to use the graphical function in a simulation of at least one finite state machine. (Page 15, Paragraph 166, Lines 13-20)

**Regarding Claim 18:**

**Kodosky et al. discloses** the system of claim 17 wherein the user input defining the at least one graphical function is entered into a function block. (Page 1, Paragraph 9, Lines 1-2)

**Regarding Claim 19:**

**Kodosky et al. discloses** the system of claim 17 wherein the system further comprises means for simulating at least one finite state machine. (Page 2, Paragraph 16, Lines 4-7)

**Regarding Claim 20:**

**Kodosky et al. discloses** the system of claim 17 wherein the user input defining the at least one graphical function includes a function prototype. (Page 2, Paragraph 11, Lines 1-6)

**Regarding Claim 21:**

**Kodosky et al. discloses** the system of claim 17 wherein the user input

Art Unit: 2128

comprises a function flow diagram. (Page 1; Paragraph 9, Lines 7-9)

**Regarding Claim 22:**

**Kodosky et al. discloses** the system of claim 10 wherein the flow diagram is comprised of graphical elements. (Figure 8)

**Regarding Claim 23:**

**Kodosky et al. discloses** the method of claim 5 further comprising the ability to hide the display of the flow diagram based upon user input. (Page 15, Paragraph 169, Lines 7-12. Linking the non-graphical code does not involve adding it to the graphical program therefore it is hidden in the graphical environment.)

**Regarding Claim 24:**

**Kodosky et al. discloses** a method of operating a data processing system having a graphical user interface comprising:

using the graphical user interface to create a graphical representation of a finite state machine including a graphical representation of a function; (Page 1, Paragraph 9, Lines 9-14)

emulating the represented finite state machine. (Page 1, Paragraph 10, Lines 10-13)

**Regarding Claim 25:**

Art Unit: 2128

**Kodosky et al. discloses** the method of claim 24 wherein the graphical representation of the function comprises a function prototype. (Page 2, Paragraph 11, Lines 1-6)

**Regarding Claim 26:**

**Kodosky et al. discloses** the method of claim 24 wherein the function prototype defines a textual format for invoking the function. (Paragraph 132 Lines 1-5. Figure 8)

**Regarding Claim 27:**

**Kodosky et al. discloses** the method of claim 26 wherein the graphical representation of the finite state machine includes at least one invocation of the function using the defined textual format. (Page 12, Paragraph 132 Lines 1-5. Figure 8)

**Regarding Claim 28:**

**Kodosky et al. discloses** the method of claim 24 further comprising shadowing a function, wherein shadowing comprising using in a function invocation a function definition closest to a point of invocation of the function in a state diagram hierarchy. (Page 3, Paragraph 20, Lines 8-13; Creators priority order can allow for closest function definition to execute.)

**Regarding Claim 29**

Art Unit: 2128

**Kodosky et al. discloses** the method of claim 24 wherein the function is exportable by a state chart and may be invoked anywhere in the finite state machine in which the chart appears, including other charts that define the finite state machine. (Page 3, Paragraph 26, Lines 4-10. Page 9, Paragraph 100, Lines 1-5)

**Regarding Claim 30:**

**Kodosky et al. discloses** the method of claim 24 wherein the emulation comprises computer code generation. (Page 12, Paragraph 133, Lines 1-4)

**Regarding Claim 31:**

**Kodosky et al. discloses** the method of claim 24

wherein the graphical representation of the function comprises a function prototype defining a textual format for invoking the function; (Page 12, Paragraph 132, Lines 1-5. Figure 8)

and wherein the graphical representation of the finite state machine includes an invocation of the function using the defined textual format. (Page 12, Paragraph 132, Lines 1-5. Figure 8)

**Regarding Claim 32:**

**Kodosky et al. discloses** a computer readable medium having encoded thereon instructions for causing a computer system to receive through a graphical user

Art Unit: 2128

interface graphical representation of a finite state machine including a graphical representation of a function; (Page 1, Paragraph 9, Lines 9-14)

and emulate the represented finite state machine. (Page 1, Paragraph 10, Lines 10-13)

**Regarding Claim 33:**

**Kodosky et al. discloses** the computer readable medium of claim 32,

wherein the graphical representation of the function comprises a function prototype defining a textual format for invoking the function; (Page 2, Paragraph 11, Lines 1-6)

and wherein the graphical representation of the finite state machine includes an invocation of the function using the define textual format. (Page 12, Paragraph 132 Lines 1-5. Figure 8)

**Regarding Claim 34:**

**Kodosky et al. discloses** in an electronic device, a method of graphically representing an event-driven system, comprising:

Providing one or more block components representing a selected state; (Page 1, Paragraph 9, Lines 1-3)

Providing one or more transition components representing transitions between the one or more block components representing a selected state; (Page 2, Paragraph 16, Lines 1-4) and

Art Unit: 2128

Providing a block component representing a function and coupled with at least one of the one or more block components representing a selected state.

(Page 2, Paragraph 17, Lines 1-4)

**Regarding Claim 35:**

**Kodosky et al. discloses** the method of claim 34, wherein the function accepts at least one argument and returns at least one result. (Page 1, Paragraph 9, Lines 1-4)

**Regarding Claim 36:**

**Kodosky et al. discloses** the method of claim 34, wherein at least a subset of the one or more block components representing a selected state and the one or more transition components can invoke the function. (Page 12, Paragraph 132 Lines 1-5. Figure 8. Page 1, Paragraph 10, Lines 1-5)

**Regarding Claim 37:**

**Kodosky et al. discloses** the method of claim 34 further comprising specifying data properties of the function. (Page 1, Paragraph 9, Lines 7-9)

**Regarding Claim 38:**

**Kodosky et al. discloses** the method of claim 34 further comprising associating a data item with the function. (Page 1, Paragraph 9, Lines 7-9. Page 2, Paragraph 11, Lines 2-7)

**Regarding Claim 39:**

**Kodosky et al. discloses** the method of claim 34, wherein the function comprises a graphical function. (Page 6, Paragraph 63, Lines 1-8)

**Regarding Claim 40:**

**Kodosky et al. discloses** the method of claim 34, wherein the function has a plurality of configurable properties. (Page 1, Paragraph 10, Lines 1-5)

**Regarding Claim 41:**

**Kodosky et al. discloses** the method of claim 34, wherein the function defines a textual format for invoking the function. (Page 12, Paragraph 132 Lines 1-5. Figure 8)

**Regarding Claim 42:**

**Kodosky et al. discloses** the method of claim 34, further comprising providing a shadowing function, wherein shadowing comprises using in a function invocation a function definition proximally closest to a point of invocation of the function in a state diagram hierarchy. (Page 3, Paragraph 20, Lines 8-13; Creators priority order can allow for closest function definition to execute.)

**Regarding Claim 43:**



Art Unit: 2128

**Kodosky et al. discloses** in a graphical representation environment, a system for graphically representing an event-driven system, comprising:

One or more block components representing a selected state; (Page 1, Paragraph 9, Lines 1-3)

One or more transition components representing transitions between the one or more block components representing a selected state; (Page 2, Paragraph 16, Lines 1-4) and

A block component representing a function and coupled with at least one of the one or more block components representing a selected state. (Page 2, Paragraph 17, Lines 1-4)

**Regarding Claim 44:**

**Kodosky et al. discloses** the system of claim 43, wherein the function accepts at least one argument and returns at least one result. (Page 1, Paragraph 9, Lines 1-4)

**Regarding Claim 45:**

**Kodosky et al. discloses** the system of claim 43, wherein at least a subset of the one or more block components representing a selected state and the one or more transition components can invoke the function. (Page 12, Paragraph 132 Lines 1-5. Figure 8. Page 1, Paragraph 10, Lines 1-5)

**Regarding Claim 46:**

Art Unit: 2128

**Kodosky et al. discloses** the system of claim 43, further comprising specifying data properties of the function. (Page 1, Paragraph 9, Lines 7-9)

**Regarding Claim 47:**

**Kodosky et al. discloses** the system of claim 43, further comprising associating a data item with the function. (Page 1, Paragraph 9, Lines 7-9. Page 2, Paragraph 11, Lines 2-7)

**Regarding Claim 48:**

**Kodosky et al. discloses** the system of claim 34, wherein the function comprises a graphical function. (Page 6, Paragraph 63, Lines 1-8)

**Regarding Claim 49:**

**Kodosky et al. discloses** the system of claim 43, wherein the function has a plurality of configurable properties. (Page 1, Paragraph 10, Lines 1-5)

**Regarding Claim 50:**

**Kodosky et al. discloses** the system of claim 43, wherein the function defines a textual format for invoking the function. (Page 12, Paragraph 132 Lines 1-5. Figure 8)

**Regarding Claim 51:**

Art Unit: 2128

**Kodosky et al. discloses** the system of claim 43, further comprising providing a shadowing function, wherein shadowing comprises using in a function invocation a function definition proximally closest to a point of invocation of the function in a state diagram hierarchy. (Page 3, Paragraph 20, Lines 8-13; Creators priority order can allow for closest function definition to execute.)

**Regarding Claim 52:**

**Kodosky et al. discloses** a medium for use in a graphical representation environment on an electronic device, the medium holding instructions executable using the electronic device for performing a method of graphically representing an event-driven system, comprising the steps of:

Providing one or more block components representing a selected state;  
(Page 1, Paragraph 9, Lines 1-3)

Providing one or more transition components representing transitions between the one or more block components representing a selected state; (Page 2, Paragraph 16, Lines 1-4) and

Providing a block component representing a function and coupled with at least one of the one or more block components representing a selected state.  
(Page 2, Paragraph 17, Lines 1-4)

**Regarding Claim 53:**

Art Unit: 2128

**Kodosky et al. discloses** the medium of claim 52, wherein the function accepts at least one argument and returns at least one result. (Page 1, Paragraph 9, Lines 1-4)

**Regarding Claim 54:**

**Kodosky et al. discloses** the medium of claim 52, wherein at least a subset of the one or more block components representing a selected state and the one or more transition components can invoke the function. (Paragraph 132 Lines 1-5. Figure 8. Page 1, Paragraph 10, Lines 1-5)

**Regarding Claim 55:**

**Kodosky et al. discloses** the medium of claim 52, further comprising specifying data properties of the function. (Page 1, Paragraph 9, Lines 7-9)

**Regarding Claim 56:**

**Kodosky et al. discloses** the medium of claim 52, further comprising associating a data item with the function. (Page 1, Paragraph 9, Lines 7-9. Page 2, Paragraph 11, Lines 2-7)

**Regarding Claim 57:**

**Kodosky et al. discloses** the medium of claim 52, wherein the function comprises a graphical function. (Page 6, Paragraph 63, Lines 1-8)

Art Unit: 2128

**Regarding Claim 58:**

**Kodosky et al. discloses** the medium of claim 52, wherein the function has a plurality of configurable properties. (Page 1, Paragraph 10, Lines 1-5)

**Regarding Claim 59:**

**Kodosky et al. discloses** the medium of claim 52, wherein the function defines a textual format for invoking the function. (Page 12, Paragraph 132 Lines 1-5. Figure 8)

**Regarding Claim 60:**

**Kodosky et al. discloses** the medium of claim 52, further comprising providing a shadowing function wherein shadowing comprises using in a function invocation a function definition proximally closest to a point of invocation of the function in a state diagram hierarchy. (Page 3, Paragraph 20, Lines 8-13; Creators priority order can allow for closest function definition to execute.)

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references include:

- 1) **"Visual Simulation of Finite State Machines"** Romuald Jagielski.  
Swinburne Institute of Technology, Department of Computer Science. P.O. Box  
218 Hawthorn 3122 Australia. SIGCSE Bulletin. Vol 20. No. 4 Dec 1988.

2) **"Graphical Representation of Programs in a Demonstration**

**Visual Shell – An Empirical Evaluation**. Francesmary Modugno, University of

Washington and Albert T. Corbett and Brad A. Myers, Carnegie Mellon

University. ACM Transactions on Computer-Human Interactions, Vol 4 No 3

September 1997. Pages 267-308.

7. All Claims are rejected.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saif A. Alhija whose telephone number is (571) 272-8635. The examiner can normally be reached on M-F, 10:00-6:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached on (571) 272-3780. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2128

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAA

July 29, 2005



JEAN R. HOMERE  
PRIMARY EXAMINER